#### **DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES Office of Structural Materials

Quality Assurance and Source Inspection

Bay Area Branch 690 Walnut Ave.St. 150 Vallejo, CA 94592-1133 (707) 649-5453 (707) 649-5493



Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

69.28 File #:

# WELDING INSPECTION REPORT

Resident Engineer: Pursell, Gary **Report No:** WIR-011965 Address: 333 Burma Road **Date Inspected:** 02-Feb-2010

City: Oakland, CA 94607

**OSM Arrival Time:** 700 **Project Name:** SAS Superstructure **OSM Departure Time:** 1900 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

**CWI Name: CWI Present:** Yes Du Zhiqun. No **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A N/A **Electrode to specification:** Yes No Weld Procedures Followed: Yes No N/A Yes N/A N/A **Qualified Welders:** No **Verified Joint Fit-up:** Yes No N/A Yes No N/A **Approved Drawings:** Yes No **Approved WPS:** Yes No N/A **Delayed / Cancelled:** 

34-0006 **Bridge No: Component:** Tower

### **Summary of Items Observed:**

On this day CALTRANS OSM Quality Assurance (QA) Inspector Shailesh Gaikwad was present during the times noted above for observations relative to the fabrication of the SAS Superstructure being performed by Zhenhua Port Machinery Company (ZPMC) at Changxing Island in Shanghai, China. QA observed and/or found the following:

#### **BAY** 10

This QA Inspector performed Magnetic Particle Testing (MT) of approximately 15% and randomly Visual Testing of the area previously tested and accepted by ZPMC Quality Control personnel. This QA Inspector generated a TL- 6028 (MT) report for this date. The member is identified South Tower Lift 4 A/E Corner Seam (Exclude Double Diaphragm part). The weld designations reviewed are as follows.

SSTL4-1B/L-3B, SSTL4-1L/L-5B

NDT Notification No: 005166

This QA Inspector performed Magnetic Particle Testing (MT) of approximately 15% and randomly Visual Testing of the area previously tested and accepted by ZPMC Quality Control personnel. This QA Inspector generated a TL-6028 (MT) report for this date. The member is identified South Tower Lift 4 D/E Corner Seam (Exclude Double Diaphragm part). The weld designations reviewed are as follows.

SSTL4-1B/L-2B, SSTL4-1L/L-1B NDT Notification No: 005167

This QA Inspector observed the following work in progress:



# WELDING INSPECTION REPORT

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#### **BAY 10**

### Repair Welding:

This QA Inspector observed ZPMC qualified welding personnel identified as 057258, Perform Shielded Metal Arc Welding (SMAW) on Tower Strut plate. The weld identified as ND1-STSA3-1-89M-1-25A(B), ZPMC CWI Identified as Liu Yang, with Critical welding repair report, CWR-T-CWR537. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-485-SMAW-2G (2F)-FCM- Repair-1.

#### Repair Welding:

This QA Inspector observed ZPMC qualified welding personnel identified as 057258, Perform Shielded Metal Arc Welding (SMAW) on North Tower lift 4. The weld identified as NSTL4-3C/L-91, near Double Diaphragm 119 M top ZPMC QC Identified as Wang Hao, with Critical welding repair report, CWR-T-CWR574. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-485-SMAW-2G (2F) Repair-1.

This QA Inspector observed ZPMC qualified welding personnel identified as 057220. Perform Shielded Metal Arc Welding (SMAW) on South Tower lift 4 back fill plate weld. Joint identified as SSTL4-1H/L-131, near Double Diaphragm 131 M top. ZPMC QC Identified as Lilin. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-T-3213-B-U2a-1.

This QA Inspector observed ZPMC qualified welding personnel identified as 052930. Perform Shielded Metal Arc Welding (SMAW) on South Tower lift 4 back fill plate weld. Joint identified as SSTL4-1H/L-30, near Double Diaphragm 131 M bottom. ZPMC QC Identified as Lilin. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-T-3213-B-U2a-1.

This QA Inspector observed ZPMC qualified welding personnel identified as 052493. Perform Shielded Metal Arc Welding (SMAW) on South Tower lift 4 back fill plate weld. Joint identified as SSTL4-1G/L-29, near Double Diaphragm 127M bottom. ZPMC QC Identified as Du Zhiqun. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-T-3213-B-U2a-1.

This QA Inspector observed during random Visual inspection, ZPMC Magnetic Particle Testing (MT) Inspector performed MT on Tower Strut Plate, The Item identified as ED1-STSA3-2-109M-2. For more information see attached photos.

Unless otherwise noted, all work observed on this date appeared to be in general compliance with the applicable contract documents.

# WELDING INSPECTION REPORT

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# **Summary of Conversations:**

Only general conversation was held between QA and QC concerning this project.

#### **Comments**

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Skyler Guest phone: 15000422360, who represents the Office of Structural Materials for your project.

Inspected By:	Gaikwad,Shailesh	Quality Assurance Inspector
Reviewed By:	Clifford,William	QA Reviewer